

**November 15, 2016 Hearing on
“Disrupter Series: Self-Driving Cars”
Committee on Energy and Commerce
Subcommittee on Commerce, Manufacturing, and Trade**

**Additional Questions for the Record
Mark R. Rosekind, Ph.D., Administrator
National Highway Traffic Safety Administration**

The Honorable Michael C. Burgess M.D.

- 1. An important issue is ensuring that we have the right policy framework in place to promote continued innovation while avoiding a patchwork of state regulations, or state regulations related to the performance and design of vehicle systems. The guidance does a good job of seeking to define some of the key roles and responsibilities for Federal and State governments in addressing automated vehicle policy. The NHTSA Federal Policy also includes a number of strong statements such as the "Guidance is not intended for States to codify as legal requirements for the development, design, manufacture, testing, and operation of automated vehicles." At the same time however, there are conflicting statements in the model policy that suggests that an application to the state for testing "should include the manufacturer's or other entities safety and compliance plan for testing vehicles which should include a self-certification of testing and compliance to NHTSA's Vehicle Performance guidance." What is NHTSA's intent with respect to states seeking to require compliance?**

RESPONSE: The Model State Policy is designed to accomplish two aims: first, to clarify and delineate the Federal and State roles for the regulation of highly automated vehicles; and second, to lay out a framework that the States may use as they write their laws and regulations so that we build a consistent, national framework for the testing and operation of highly automated vehicles.

As stated in the Model State Policy, NHTSA strongly encourages States to allow NHTSA alone to regulate the safety and performance aspects of HAV technology and vehicles. NHTSA encourages those States that wish to regulate HAV testing to incorporate relevant components of the Model State Policy into their regulations, in order to promote a more cohesive body of authorities and avoid a patchwork of inconsistent State laws and regulations. Through the development of the Model State Policy, many States expressed their views that while they were generally comfortable with the Federal government having the responsibility for the regulation of vehicle and equipment safety, they would need confidence that vehicle manufacturers, testers and other entities were conforming to the safety assurance approach envisioned in the Federal Automated Vehicles Policy. Therefore the Model State Policy suggests to States that they may request submission of confirmation that an automaker, tester or other entity has followed the principles set forth in the Vehicle Performance Guidance. The Model State Policy recommends that a copy of the Safety Assessment Letter could serve that purpose, but as that letter is presently voluntary, a State

could request alternate documentation in lieu of the letter (e.g. from entities that do not submit the Safety Assessment Letter).

Absent this assurance, and absent the implementation of a new Federal Motor Vehicle Safety Standard that would preempt State action, states have the legal right and power to develop their own vehicle safety and performance criteria. Such actions would create the undesired patchwork of state laws and regulations that would inhibit innovation by presenting developers of these technologies multiple sets of potentially conflicting standards.

a. Isn't requiring compliance the same as "codifying" what are intended to be flexible, nimble guidelines, through regulation?

RESPONSE: Not in our view. As discussed in the Policy, we intend for the Vehicle Performance Guidance to be nimble and flexible, changing over time as real-world experience and new technological advances provide greater understanding of how to best ensure safety. As such, we recommend that individual States do not codify any of the specific language or requirements of the Vehicle Performance Guidance in their own laws and regulations.

For States that seek assurance that vehicle safety has been adequately addressed before they permit the testing of highly automated vehicles, they may request copies of the Safety Assessment Letter, or another form of documentation, providing evidence the entity seeking to test a highly automated vehicle has addressed the functional safety principles and considerations described in the Vehicle Performance Guidance.

It is NHTSA's intention to make Safety Assessment Letters publicly available after appropriate review by the Agency, which may eliminate the need for States to request copies of those submissions from entities seeking permission to test in their State.

b. Can you please clarify NHTSA's position on codifying the Policy?

RESPONSE: The Agency does not intend for States to codify the Vehicle Performance Guidance. NHTSA's intention is to update the Policy on an annual basis. Those updates will be based on public feedback, technological innovations, and our experience in implementing the Policy.

The Federal Automated Vehicles Policy delineates the Federal and State roles for the regulation of highly automated vehicles. The Policy discourages States from codifying the federal Vehicle Performance Guidance in their own laws and regulations. Such codification could create unintended impediments to the development, safe testing and deployment of HAVs and reduce the flexibility the Policy seeks to promote. State codification of some or all provisions of the Vehicle Performance Guidance could effectively freeze State law and regulations at a particular point in time and thereby deprive the State of the benefits of subsequent evolutions of and improvements to the Guidance based on innovation and experience over time. Because automated vehicle technology is evolving so rapidly, it is important that government regulation at all levels

be nimble, flexible, and able to rapidly adjust to changes in technology and its uses. Codifying any particular iteration of the Vehicle Performance Guidance could work against the flexibility that is essential to taking full advantage of the promise of automated vehicles and technologies.

It is entirely consistent with this approach for a State to request a copy of a Safety Assessment Letter from an entity that has submitted such a letter to NHTSA. Such a request would not codify the Vehicle Performance Guidance.

c. Do you intend to clarify and connect these conflicting statements in the Policy? If so, when would that clarification be provided?

RESPONSE: Based on stakeholder feedback and questions, the Agency is preparing to release a Frequently Asked Questions document that will further clarify this matter and other parts of the Policy that have been the subject of some confusion and misconceptions. NHTSA expects to release this in January 2017.

2. In the Federal Automated Vehicles Policy, NHTSA has indicated that they are adopting the levels of automation as defined in SAE 13016. While significantly clarifying the different automation levels achieved by different systems there may still be some ambiguity as to the specific level for a particular system. In this case SAE J3016 leaves the determination up to the manufacture because they best understand the particular aspects of the system design and intent. Do you agree that the manufacturer should make this determination?

RESPONSE: Under the Policy, the determination of the appropriate level of automation is the responsibility of the entity testing or deploying that system. However, as the Next Steps section of the Policy indicates, NHTSA will publish a report that provides an objective method that manufacturers and entities may use to classify their automated vehicle systems.

a. How would the agency respond if they disagree with a manufacturer's judgement?

RESPONSE: The Safety Assessment Letter is an opportunity to begin an open dialogue between NHTSA and manufacturers and other covered entities regarding the safe testing and deployment of an automated system. If NHTSA has questions regarding any aspect of the system, including its classification, the follow-up dialogue could be used to discuss those questions and seek additional information if necessary to understand how an entity has addressed one or more of the 15 Safety Assessment areas.

3. The FAST Act prohibits NHTSA from enforcing failure to comply with Guidance. How would the agency react to a manufacturer that chooses to not to submit a safety assessment letter to the agency?

RESPONSE: The Safety Assessment Letter is one source of information NHTSA will use to evaluate how safety is being addressed by manufacturers and other entities developing and testing HAV systems. If a manufacturer declines to submit a Safety Assessment Letter,

NHTSA may utilize and pursue additional sources of information and outreach activities to understand how that manufacturer has considered the Safety Assessment areas

a. Could this information be required through a Special Order or Information Request?

RESPONSE: If NHTSA does not otherwise have sufficient information to adequately assess the safety aspects of HAV systems and to ensure vehicle safety, NHTSA will take necessary steps to obtain the requisite information, which could include the use of Information Requests or Special Orders when appropriate.

b. Would NHTSA prevent a manufacturer from deploying?

RESPONSE: NHTSA will continue to use all of its existing tools and authorities to ensure the safety of the American public in evaluating and assessing the deployment of HAV systems.

4. During the release of the Federal AV Policy, the Administration noted the critical role of vehicle connectivity in automation and their intention to move forward with a rule to mandate connected car technology in all new vehicles. Can you please provide the Committee with a status update of this proposed rulemaking?

RESPONSE: On Dec. 13, 2017, NHTSA issued an NPRM initiating a rulemaking regarding “Vehicle-to-Vehicle” communications, which includes a proposed mandate for the inclusion of vehicle-to-vehicle communication technology in all new light-duty vehicles sold in the United States.

5. Last year, we passed the FAST Act, and one of the important changes was allowing automakers to (under certain circumstances) test new cars even if they do not comply with all Federal Motor Vehicle Safety Standards (FMVSS). The idea was to allow manufacturers to test new technology and not be constrained by the standards-like testing a car with no steering wheel. But the Model Policy states that manufacturers should certify that test vehicles meet "all applicable" FMVSSs.

a. Doesn't this conflict with the spirit and intent of the FAST Act?

RESPONSE: NHTSA believes that the Model State Policy is consistent with the FAST Act amendment to 49 U.S.C. 30112, given that statutory provisions necessarily control over agency guidance. The Model State Policy must be read in the context of existing statutory provisions. The FAST Act allows certain manufacturers to introduce non-FMVSS-compliant vehicles into interstate commerce solely for purposes of testing, as long as those manufacturers do not subsequently sell those vehicles. Because the FMVSS do not “apply” in these particular instances, a manufacturer need not certify compliance with (inapplicable) FMVSS. The Agency would, however, expect the manufacturer’s application to clearly state that it is relying on the FAST Act provision rather than certifying to applicable FMVSS. For manufacturers who are not eligible to rely on this

provision, we would still expect them to certify that they meet applicable FMVSS and refer to that certification in their application to test.

- b. If a state were to adopt this aspect of the Model Policy-in other words, if a state were to require that all test vehicle comply with all FMVSSs-wouldn't that mean that a manufacturer couldn't test vehicles with no steering wheels? Was that the intent?**

- i. How does that help testing and the development of this technology?**

RESPONSE: The intent of the Model State Policy was to encourage manufacturers to inform states about their test vehicles' FMVSS compliance status. If a manufacturer has certified that its test vehicle complies with applicable FMVSS, they should have no trouble in stating so. If a manufacturer is relying on the FAST Act amendment to 49 U.S.C. 30112 or some other exemption instead of complying with the FMVSS, we would expect that to be stated in the test application. Either way, states would have the information they need about whether and how manufacturers are complying with the FMVSS.

- c. Does NHTSA have any views as to whether the FAST Act preempts state restrictions on testing?**

RESPONSE: NHTSA has no views on whether the FAST Act preempts state restrictions on testing.

The Honorable Tony Cardenas

- 1. Given the recent breaches at OPM, how does NHTSA propose to secure all the sensitive data it will receive?**

RESPONSE: NHTSA is looking at options for data collection and storage from entities who submit information via a Safety Assessment Letter. Options for storing data received from entities about testing and deployment is also under review. The specific method for collection and storage of data has not been determined. However, NHTSA will follow security measures to ensure sensitive information is protected.

- 2. When does NHTSA hope to have more in-depth guidance for levels 4 and 5?**

RESPONSE: NHTSA has committed to updating the Policy on an annual basis as the knowledge base increases regarding highly automated systems and vehicles and the technology evolves. This will affect guidance for all levels of automation including levels 4 and 5.